

tion, the program will conduct a HELP Model v2.05 water budget simulation and display the results of the simulation in graphs and tables. HMfW is used in LANDIS to allow hydrological characteristics of specific landfill designs to be incorporated into the landfill disposal assessment process.

The HELP Model for Windows program consists of: a Microsoft Windows™ graphical user interface; relational database management system for storage, retrieval and analysis of landfill designs; HELP landfill design and hydrological model computation engine (Hydrological Evaluation of Landfill Performance, ver. 2.05, USAE Waterways Experiment Station, Vicksburg, MS); and an on-line help system.

Help Model for Windows is run independently of the LANDIS program. A user can either design a new landfill or load and edit a previously saved design. The HELP model can then be run to examine the hydrological characteristics of the landfill, or the design can be saved and evaluated during a subsequent LANDIS consultation.

HELP Model for Windows v2.05 was commercially released as a stand-alone product in August 1993. National and international sales of the program are continuing. A LAN (local area network) version of HMfW was commercially available in June 1994. The LAN program extends the stand-alone version by providing: a single repository for the program and databases; "work group" editing among all users; easy node installation; and network security.

RESULTS

Users of the system realize direct cost savings due to reduced requirements for waste analysis and testing. In addition, since all knowledge processing and data interpretation steps are available for review, LANDIS provides a strong basis for fairness, con-

sistency and co-operation between government and industry when determining the suitability of wastes for landfill disposal.

TECHNOLOGY OPPORTUNITIES

HELP Model for Windows v2.05 is distributed in Canada by BetzDearborn. United States and international sales are distributed in partnership with Scientific Software Group, Washington DC.

The continuing sales of HELP Model for Windows v2.05 in the international markets indicates a great opportunity for HMfW and LANDIS. Upgrades to the products are being evaluated with other partners.

PARTNERSHIP IN POLLUTION PREVENTION AND RESOURCE CONSERVATION

The demonstration of this technology was partially supported by the Ontario Ministry of the Environment. Other partners include Environment Canada's Wastewater Technology Centre, Water Technology International Corporation, Supply and Services Canada (through the Unsolicited Proposals Program) and the Canadian Electrical Association.

Industrial companies located in Ontario may seek ministry/industry services which will help them:

- * reduce, reuse and recycle solid waste;
- * effectively clean up historic pollution and destroy hazardous contaminants;
- * reduce or eliminate liquid effluent and gaseous emissions;
- * use energy and water more efficiently.

Equipment and services supply companies can benefit from the information provided on technologies identified for business development.

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